Persisting post concussional symptoms and water metabolism

persisted at 24h. Intensity of staining and number of positive cells peaked at 12h. In a second experiment, 12 animals received daily intraventricular injections of 50 µl of either control or APCA IgG for 15 days. Four animals of each group were sacrified 24 hours after last injection without showing clinical or pathologic evidence of cerebellar damage. Intracytoplasmic IgG was detected in the Purkinje cells in both groups. Two animals of each group were sacrificed 7 days after the last injection of IgG. None showed cerebellar damage and faint positive staining for IgG was seen in a few Purkinje cells. These results suggest the uptake of APCA IgG by Purkinje cells is not different from control IgG. APCA IgG may reach Purkinje cells within hours but repeated injections of APCA IgG did not cause a cell damage suggesting that the antibody alone is not the cause of the Purkinje cell loss in paraneoplastic cerebellar degeneration.

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AUTONOMIC DYSFUNCTION IN PATIENTS WITH NEOPLASM. R Martin, JM Delgado, JM Vicent, R Insa, JM Molto, J Matias-Guiu, *Alcoy, Spain*

Only a few systemic studies on autonomic function have been performed in patients with malignant disease. We studied 48 patients with carcinoma or lymphoma, mean age 64.04 yrs (SD:11.12), 32 (66.7%) males and 16 (33.6%) females, with a Karnofsky index over 50%, and 62 age matched controls. 35 (85.4%) patients had various carcinomas and 13 (27.1%) lymphomas. A prospective clinical protocol was applied to each patient. Cardiovascular reflexes were tested in the morning according to the methodology proposed by Ewing and Clarke. Heart rate response to Valsalva manoeuvre (Valsalva index), heart rate response to deep breathing (E:I difference), heart rate response to standing (30-15 ratio) and blood pressure response to standing and to handgrip were examined. The results in the study group were (mean±SD): Valsalva index: 1.60 – 0.10; E:I difference: 9.99±5.48; 30-15 index: 1.07±0.11; blood pressure fall on standing (mmHg): 12.00±6.67; and blood pressure elevation on handgrip (mmHg):11.56±5.58. In the control group the results were; Valsalva index: 1.19±0.18; E:I difference: 12.38±7.87; 30-15 index: 1.15±0.14; blood pressure fall on standing: 4.24 – 5.96 and blood pressure elevation on handgrip: 16.48±9.36. No significant differences were found in the age, sex and heart rate responses to the Valsalva manoeuvre and deep breathing. We found an abnormal response of the heart rate and blood pressure on standing (P:0.0002, P:0.001) and an abnormal response of heart rate on handgrip (P:0.001). No differences were found between patients with carcinoma or lymphoma. Our data suggest that patients with malignant disease suffer autonomic impairment, generally asymptomatic and without differences with respect to the type of tumour.

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MINIMAL NEUROLOGICAL SYMPTOMATOLOGY IN THE PRESENCE OF A LARGE MULTICYSTIC TUMOUR (EPIDERMOID CYST ?) OF THE BRAINSTEM. G Pennisi, I La Boria, R Bella, M Tarascone, R Marziolo, R Biondi, *Catania, Italy*

We describe a case of a large cystic posterior fossa tumour because of minimal clinical manifestations and a particular neuroradiological pattern suggestive of an epidermoid cyst-like formation. A 63-yr-old man was admitted in December 1989. For a year he had suffered temporary scotomata and giddiness. The reason for the hospitalization was a TIA with a right pyramidal hemisyndrome. CT scan showed a hypodense lesion with irregular but well marked outlines involving the left half of the brainstem and extending as far as the IVth ventricle. MRI scan displayed a large cystic formation involving the area of the IVth ventricle and of the pons mainly on the left spreading upwards. Some cystic cavities were also observed in the right pons. The BAERs showed desynchronization with poorly formed components. The neuroradiological images suggest the presence of a dysembryogenetic formation, particularly an epidermoid cyst. This has been described as a very rare tumour of the IVth ventricle. Owing to the minimal neurological symptoms we did not advocate surgical intervention and therefore histopathological data are available. The probable slow growth of a very longstanding noncongenital malformation of the brainstem may allow a progressive adaption of the encephalus.

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INCREASED FREQUENCY OF HYPERREFLEXIA IN NORMAL PREGNANCY. CR Gordon, A Achiron, R Achiron, N Gadoth, *Petah Tiqva & Jerusalem, Israel*

As a result of an incidental observation of the frequent occurrence of hyperreflexia in normal pregnant women, a computer search of the neurological and obstetric/gynaecology literature failed to reveal publications regarding the state of deep tendon reflexes during normal pregnancy. Therefore, we have examined a cohort of pregnant women with special emphasis on their tendon reflexes. The present report summarizes the finding of 59 normal pregnant and 21 early postpartum women. Twenty nonpregnant, age-matched, healthy women served as controls. The tendon reflexes were elicited with an ordinary clinical reflex hammer and graded as hyporeflexia; normal; hyperreflexia; hyperreflexia with pyramidal signs. Up to 32 wks of gestation, 15 (5-%) of the pregnant women were found to be hyperreflexic. Out of the 29 women between 33- 42 wks gestation, 2 (7%) were hyporeflexic; 8 had normal reflexes; 16 (55%) had hyperreflexia; and 3 (10%) showed hyperreflexia with pyramidal signs. In the early postpartum group of 21 women, 16 (17%) had hyperreflexia and 5 (25%) were found also to have pyramidal signs. In the control group, only 3 (15%) had hyperreflexia and none had pyramidal signs. In summary, a high frequency of hyperreflexia during normal pregnancy and the early postpartum period was found. Possible physiological mechanisms and clinical implications of these findings regarding toxaemia of pregnancy will be discussed.

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PERSISTING POST CONCUSSIONAL SYMPTOMS AND WATER METABOLISM. N Bohnen, A Twijnstra, J Jolles, *Maastricht, The Netherlands*

The post concussional syndrome comprises a mixture of quasiorganic and subjective symptoms. There is a striking disparity between those who argue for a physiological or for a psychological pathogenesis. Post traumatic diabetes insipidus has been reported as a sequela to head injury. The complete or partial deficiency of the release of arginine-vasopressin into the blood may indicate a lesion of the posterior pituitary. Since vasopressin may affect behavioural and/or cognitive functions (J Jolles, Prog Brain Res 1986;65:177- 192), besides being involved in controlling water metabolism, we questioned whether a partial deficiency in the function of vasopressin could be related to persisting symptoms after mild head injury. A screening test for post traumatic diabetes insipidus, developed by Notman et al (J Trauma 1980;20:599- 602) was applied in 16 patients (aged 16-48 yrs) with mild head injury at 1 month after the trauma. All subjects experienced loss of consciousness of some seconds up to 15 min with a post traumatic amnesia of less than 60 min. For each patient the acute EMV score on admission was 15. None of the patients had evidence of a skull fracture or had consumed alcohol at the time of the trauma. Seven patients had no persisting symptoms 1 month after the time of trauma, whereas 9 patients at that time still complained of a variety of post- concussional symptoms. The results of the screening test revealed that the 7 patients with no persisting symptoms all fell within the normal range of the test, whereas 7 patients of the group with persisting symptoms (n=9) had slight disturbances in the capacity of the kidney to concentrate urine. These preliminary results suggest that subclinical disturbances in water metabolism may, at least partly, be related to the persistence of symptoms after mild head injury.

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STEROID SENSITIVE MENINGOENCEPHALITIS ASSOCIATED WITH HASHIMOTO'S THYROIDITIS. BF Pertuiset, JP Luton, *Paris, France*

A 63-yr-old woman presented with memory loss, gait disturbance and episodes of mental confusion. One year later she was confused but neurological examination was otherwise normal. General examination was also normal. The past medical history was remarkable for 3 carcinomas, ovary, skin and bladder. The last had been treated with surgery, radiotherapy, chemotherapy and 2 courses of BCG therapy. EEGs showed diffuse theta and delta activity with sharp waves. CSF contained 530mg/dl of protein (gamma globulin 14%) and 12 lymphocytes/mm3; cultures were sterile. She was fully investigated for carcinomatous, inflammatory and infectious diseases, with